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The Dynamic between Work Values and Part-Time Work Experiences across the High School Years

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Work values regulate and evaluate thoughts, behavior, and events associated with work and they are thought to be organized into a system (Brown & Crace, 1996; Porfeli & Vondracek, in press). A work value system is composed of some number of work values. The structure of the system is defined by the relationships between the constituent work values. Much work has been done to identify the essential work values within the work value system and how the system is structured (Pryor, 1982; Super, 1995; Super & Hendrix, 1968).

Over the past century several models depicting the composition of the value system have emerged (Allport & Vernon, 1931; Kluckhohn, 1951; Schwartz & Bilsky, 1987; Super, 1962; Super & Sverko, 1995). A great deal of work has been conducted to establish the existence and assess the impact of the value system on human functioning (Feather, 1990; Kilby, 1993; Kluckhohn, 1951; Rokeach, 1973; Schwartz & Bilsky, 1987) and particularly work behavior (Brown, 1995, 1996; Brown & Crace, 1996; Johnson, 2000, 2001a, 2001b, 2002; Mortimer & Lorence, 1979; Super, 1957, 1990, 1992, 1995) and to affirm that human development is partly defined in terms of value system development (Kluckhohn, 1951; Rokeach, 1973). This literature suggests that values and behavior mutually influence one another, yet little work has been conducted to determine how the value system develops over time.

Recent research has begun to hypothesize and test patterns of value stability and change reflective of a dynamic system regulating and evaluating thoughts, behavior, and events pertaining to work and career (Porfeli, 2007). This research suggests that adolescents exhibit predicted processes of change and stability that are presumably governed by a dissonance mechanism, which ultimately serves to promote value system development and maintain harmony within the value system (Porfeli, 2007). The present study extends this previous work by testing whether a dissonance mechanism, consisting of these processes of cohesion and discrepancy reduction, govern the relationships between work values and part-time work experiences during the adolescent years.

Part-time work is a ubiquitous experience of adolescents in the US and research suggests that it may be an important context for vocational development and the formation of work values. While one body of research suggests that part-time work during adolescence is associated with

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dysfunctional behaviors (e.g., Bachman & Schulenberg, 1993; Mortimer, Finch, Shanahan, & Ryu, 1992a; Paschall, Ringwalt, & Flewelling, 2002; Steinberg & Avenevoli, 1998; Wu, Schlenger, & Galvin, 2003), other research points to functional outcomes like the formation of work values associated with central work tasks (Skorikov & Vondracek, 1997), personal responsibility, and the development of social skills (Kablaoui & Pautler, 1991). Part-time work may even serve as a “steeling” context that prepares adolescents for the normative work distress experienced during young adulthood (Mortimer & Staff, 2004). Part-time work appears to have a meaningful impact on adolescent outcomes and the present study will add to this literature by examining the relationships between part-time work experiences and related value system development during the high school years.

A Work Value System Concept Model

Values presumably serve as durable references evaluating and directing behavioral tendencies and plans, but values do not necessarily dictate any particular action or choice during any particular moment (Boldero & Francis, 2002; Feather, 1992; Kluckhohn, 1951; Rokeach, 1973). Previous conceptual models of the value system aimed to classify values into mutually exclusive categories such as Rokeach’s (1973) terminal versus instrumental values categories. In contrast, Boldero and Francis (2002) suggested that each value may be employed in both a standard- and goal-oriented fashion. Standard-oriented applications of the value system deal with what a person prefers to *be* and from this perspective values are engaged in the management and direction of ongoing experiences, while goal-oriented manifestations of the value system reflect what a person wishes to *become* and thus values are seen as being principally engaged with behavior directed toward anticipated future experiences and outcomes. Accordingly, a value is not necessarily either terminal or instrumental; rather, each value may be employed as a standard and/or a goal influencing behavior.

Patterns of Change Maintaining Within-Person and Person-Within-Context Harmony

The connection between values and present-oriented behavior is conceptually rooted in dissonance theory (Festinger, 1957) and cybernetic models akin to an adaptive control system (Ford & Lerner, 1992), suggesting that values influence behaviors and experience in a reciprocal fashion across time (Boldero & Francis, 2002). Value system development is presumably indicated by increasing harmony between standard- and goal-oriented manifestations of a value and between the value system and experience.

When values are applied as a standard, then Boldero and Francis (2002, p. 233) predict that discrepancies between what a person prefers to be (the standard) and what a person actually is will yield a “negative psychological state,” presumably similar to Festinger’s (1957) cognitive dissonance. This will in turn prompt behavior or value change to reduce the discrepancy and the negative psychological state associated with the discrepancy. On the contrary, Boldero and Francis (2002) predict that the discrepancy between the goal-oriented value and the current situation will not necessarily yield a negative psychological state. Goal-setting is generally associated with positive affect and often involves the act of invoking a discrepancy between one’s current and desired state. Continued positive affect hinges on the rate of progress toward the established goal rather than the discrepancy between a value and the corresponding behavior. Therefore, the rate of progress toward a goal influences positive affect, which in turn influences goal-oriented value and/or behavior change over time. Given the theoretically predicted differences in the relationships between experiences and standard- versus goal-oriented values, part-time work experiences are predicted to be principally related to standard-oriented part-time work values and to be associated with goal-oriented values in an indirect or mediated fashion. Standard-oriented part-time work values are therefore predicted to mediate

the relationship between part-time work experiences and goal-oriented career-related work values (see Figure 1).

Previous research suggests that harmony or an absence of dissonance within the work value system can be maintained through interacting *discrepancy reduction* and *cohesion* processes of change across time (Porfeli, 2004; Porfeli & Vondracek, in press). The cohesion process is reflected by the salience of two values moving together across time. As a value increases, decreases, or remains constant, so should other associated values. When two values exhibit a notable discrepancy, then a discrepancy reduction process of change is necessary to reduce the discrepancy before a cohesion process can be employed to maintain the reduction. The discrepancy reduction process can be reflected in an increase or decrease in one or both values to achieve convergence. In this study, the same predictions are made concerning the relationships between work values and experiences. For example, a person may place a strong value on income and determine that his or her income is presently insufficient. To resolve this discrepancy, a person may seek more income, devalue income, or do both over time. During the following period of discrepancy reduction, income may increase, the value of income may decrease, or both changes could occur to reduce the difference between the two and thereby reduce the dissonance associated with the difference between one's income and how one values income. Under the condition of a large discrepancy between a value and an analogous experience, the cohesion relationship is negative (value decreases and experience increases) and leads to discrepancy reduction, and under the condition of a small discrepancy, the cohesion relationship is positive, values and experiences move in the same direction and this leads to the maintenance of small discrepancies. While the cohesion process predicts a positive correlation in the change patterns, the discrepancy reduction process predicts an inverse or negative correlation between the changes in values and behaviors over time.

The Present Study

The present study examined the longitudinal link between part-time work experiences and work values during the high school years. Previous research (Johnson, 2001a, 2002) examined the theoretical assertions that people select work experiences that reinforce their work values (Mortimer & Lorence, 1979) and that work environments affect relevant features of the personality, including work values (Kohn & Schooler, 1973, 1983). This research suggests that work experiences and values are linked together across time and that earlier work experiences appear to have a greater impact on work values than vice versa. To extend previous research, the present study examined whether the discrepancy reduction and cohesion processes operate in value system development as it relates to part-time work experiences during the high school years. Figure 1 depicts in path-modeling terms the nature of the discrepancy reduction and cohesion moderator model within the value system (gray portion) and between the value system and experience (the point of intersection between the gray and dotted portions). The solid arrows reflect direct and stronger relationships while the dashed arrows reflect potentially mediated and weaker relationships.

The present study tested the following three hypotheses across three work value/experience domains:

1. The cohesion and discrepancy processes of change operate in an interactive fashion to maintain person-within-context harmony over time. Specifically, these processes interact in a fashion that serves to reduce large discrepancies and preserve small discrepancies between standard-oriented values and part-time work experiences.
2. The link between standard-oriented work values and part-time work experiences is stronger than the link between goal-oriented work values and experiences.

3. Standard-oriented work values mediate the relationship between part-time work experiences and goal-oriented work values.

Method

Participants

The sample was randomly selected from the St. Paul (Minnesota, USA) School District during the 9th grade and surveyed every year through the 12th grade (Youth Development Study, Jeylan T. Mortimer, Principal Investigator). The Youth Development Study is an ongoing longitudinal study that began during 1989 assessing 9th grade students. Of those student originally invited, 64% elected to participate. Of the original group of participants, 93% were retained through the 12 grade and through 11 years the retention rate was 72.4%. Fifty-two percent of the sample is female and 74% is Caucasian. Those people who choose to participate and those who did not were found to exhibit no socioeconomic differences (Mortimer, Finch, Shanahan, & Ryu, 1992b). Data from 1010 participants spanning the 10th to 12th grades were examined in the present study.

Previous research has found that the sample sufficiently represents adolescents in the St. Paul, Minnesota community across several key characteristics including sex and socioeconomic indicators (Mortimer et al., 1992b), yet the St. Paul community did differ from the U.S. population across racial, economic, and educational dimensions at the time of data collection (Porfeli, 2004). Employing 1990 U.S. Census data, the city of St. Paul, as compared to the US, was inhabited by about one-half as many African Americans, twice as many American Indians, Eskimos, or Aleuts, twice as many Asians or Pacific Islanders, and one-half as many other racial groups. The sample is also slightly wealthier and more educated than the US population. These differences may limit the generalizability of the results of this study.

Measures

A pen-and-paper questionnaire format was used to collect the data employed in this study. The participants were given the option to complete the study materials during the school day and if unavailable, the instruments were mailed to the participants to complete them at home. Participants were compensated \$10 for their participation. The instruments employed in this study were created by the team of researchers responsible for planning and conducting the Youth Development Study (Jeylan T. Mortimer, Principal Investigator).

Part-Time and Full-Time Work Values—Items assessing part-time work values (PTWV) during the high school years were preceded by the following prompt:

“When seeking employment, some students just try to find part-time work, and do not care very much about the kinds of jobs they get. Others look for certain things in a job.”

Participants were then asked, “How important would each of the following be to you if you were seeking a part-time job after school or on weekends during this school year?” and provided with a series of work values listed in Table 1. Students responded to each item via a four choice Likert scale from “not at all important” to “extremely important.” Values pertaining to part-time work were considered to be standard-oriented work values.

Participants were then presented with the following stem, “What about when you finish school, and are out working full-time? How important would each be to you?” and the same list of work values. These items were presumed to measure full-time work values (FTWV), which were presumed to be a manifestation of goal-oriented and career-centered work values.

Within the work values domain, Super (1995) proposed several work values including economic security, stimulative social interaction, and use of abilities values. Pryor (1981) presented values in terms of *work aspect preferences* and classified these preferences into values such as money, life style, security, detachment, prestige, management, altruism, independence, and self development. Kalleberg (1977), submitting 34 work value items to factor analysis, identified five dimensions, namely intrinsic (e.g., interesting work that permits self direction), convenience, financial, relationships with co-workers, career (e.g., chance for promotion and a chance to get ahead), and resource adequacy (e.g., adequate equipment and information to conduct one's job requirements). Synthesizing a program of research published in journals printed in English and Swedish, Hagstrom and Gamberale (1995) found the structure of work values to be defined by three factors, expressive work goals (e.g., mastery values), working conditions (e.g., job security and safety), and work benefit (e.g., pay and promotion). The present study applied these three factors to 11 work values items initially drafted to assess intrinsic and extrinsic work values (Mortimer, Pimentel, Ryu, Nash, & Lee, 1996) by further refining these classifications into mastery (e.g., use of abilities values, independence, autonomy, self development, and expressive work goals) interpersonal (e.g., stimulative social interaction, altruism, and relationships with co-workers), and economic security (income and job security) values constructs. This classification is more consistent with other work values classifications reviewed above and lends greater specificity than the original intrinsic/extrinsic distinction.

As reported previously (Porfeli, 2004), the value instruments underwent psychometric testing employing confirmatory factor analysis. The three value domains exhibited metric invariance (Conroy, Metzler, & Hofer, 2003; Wicherts & Dolan, 2004) from the 9th to 12th grades. These findings suggested that the theoretically predicted structure of the work values fit the data well and that this structure remained stable across the high school years for both sexes.

Each value construct (e.g., economic security, interpersonal, and mastery) was created summing the respective items associated with each value construct (see Table 1) and then the work value variables were standardized (i.e., $M = 0$ and $SD = 1$) for the purposes of avoiding co-linearity problems when estimating the moderator models discussed below and to yield an identical metric across the three value domains. With the exception of the economic security domain for part-time work values ($\alpha = 0.5$ to 0.6 across the four occasions), the value constructs exhibited reasonable reliability (Porfeli, 2004) in the range of 0.64 to 0.79 and most typically greater than 0.70 .

Part-Time Work Experiences (PTWE)—Participants were asked to assess various aspects of their current part-time work experiences on Likert scales ranging from 1–4 or 1–5 depending on the question. The anchors for the Likert scales reflected the nature of the question, in some cases referring to the frequency of an experience and in others referring to a range indicating the relative presence or absence of an opportunity. Each work experience construct (e.g., economic security, interpersonal, and mastery) was the sum of the identified items (see Table 1), which had been recoded to reflect whether they represented the positive or negative aspect of the construct. The total scores for each work experience construct were then standardized (i.e., $M = 0$ and $SD = 1$) so that the metric of the work experience variable was identical to the other work experience domains and to the work value constructs discussed above.

Work Value and Experience Change Scores—The changes in work values and experiences across time were computed with orthonormalized polynomial linear trend scores. Essentially, each participant's set of values and experiences scores across occasions are combined to yield one score reflecting a particular form of change (e.g., linear or quadratic). The following formulas are employed to compute the linear change across three and four occasions respectively.

$$\text{Wave 1 to Wave 4 linear change} = \frac{(-3 \times \text{Wave1}) + (1 \times \text{Wave2}) + (1 \times \text{Wave3}) + (3 \times \text{Wave4})}{\sqrt{(-3)^2 + (1)^2 + (1)^2 + (3)^2}}$$

$$\text{Wave 1 to Wave 3 linear change} = \frac{(-1 \times \text{Wave1}) + (0 \times \text{Wave2}) + (1 \times \text{Wave3})}{\sqrt{(-1)^2 + (0)^2 + (1)^2}}$$

Missing Work Experience Data—Any summary (i.e., polynomial change) score reflecting change in work experiences across occasions in the present study yielded a significant proportion of missing values because when participants were not working they did not complete the part-time work experience items. Absent a priori efforts to resolve this missing data problem (e.g., imputation efforts), polynomial linear trend scores computed in the traditional manner grossly and may unnecessarily restrict the power contained in the work experience data because the procedure employs list-wise deletion.

Two strategies were employed to circumvent this potential missing data problem. First, students who worked during only one occasion of measurement during the 10th to 12th grades were excluded when the research question involves the change in work experiences across time because at least two occasions of measurement will be required to assess change. Second, only the *linear* polynomial change across time was examined given that many participants (n=289) worked only two of the years spanning 10th to 12th grade. For those participants who worked during all three years spanning 10th to 12th grade, a quadratic polynomial change score could be estimated and examined but is not useful in the present approach because the other included participants only have employment data from two occasions of measurement.

There exists a possibility that the timing of part-time work may have an impact on link between work values and experiences. One of the strategies to limit missing data involves treating, for example, students who worked only during the 10th and 11th grade years as a part of the same group that worked from the 10th to 12th grades. To test whether this is an appropriate strategy, the research hypotheses linking work values and experiences included an additional variable that was an indicator of when a participant worked. Working participants were grouped into cohorts according to their pattern of work experience from 10th to the 12th grade. Groups included participants who worked at all three occasions or during 10th and 12th grade (n = 305), those who worked during only the 10th and 11th grades (n = 72), and those who worked only during the 11th and 12th (n = 166) grades. Therefore, potentially 53.8% of the sample (543/1010 participants) and 72.4% of those who ever worked (543/750 participants) during the 10th to 12th grade years has the opportunity to be included in these analyses assuming that these participants completed all of the work values and part-time work experience items employed in this model. The moderator hypotheses were examined to determine if being in particular work cohort influenced the relationships in all of the moderator research hypotheses involving work experience. This approach, for example, would reveal whether or not the pattern of relationships between work values and experiences varies as a function of the three work cohorts across the 10th to 12th grade interval. If work group membership does not moderate the hypothesized relationships, then the work groups will be collapsed and the overall model re-estimated to determine if and to what extent, for example, the relationship between the linear change in part-time work values and part-time work experiences is moderated by the discrepancy between the two regardless of when a participant started working and regardless of the pattern of that work experience. If work group membership influences the hypothesized relationships, then these influences will be examined to determine how the timing (e.g., start work in 10th or 11th grade) and/or configuration (e.g., work during 10th, 11th, and 12 grade

versus only two years) of part-time work experience influences the proposed theoretical mechanisms.

Work Value and Experience Discrepancy Scores—Discrepancies between part-time work values and work experiences and between full-time work values and part-time work experiences were computed by subtracting the value construct score (e.g., part-time work mastery values) from the associated work experience construct (e.g., part-time work mastery experiences) for each participant. Given that the metric of the work experience and value variables was identical because they were standardized, positive discrepancies demonstrate that a participant places relatively more importance on a value than is reflected in his or her part-time work experiences and negative discrepancies reflect a participant who is garnering relatively more of a particular work experience than he or she values the experience.

Data Analysis

The theory of work values and experiences forwarded here predicts a reciprocal relationship between values and experiences over time. The double headed arrows in Figure 1 reflect the predicted nature of the relationship, which can be expressed as a correlation between two variables. To estimate this model, OLS regression was employed because it allows for a direct test of the hypothesized moderator and mediator models and it is rooted in the correlation or variance-covariance matrix of the variables. Although a causal direction must be specified to compute a regression model, the aim here is to simply employ the statistic to determine the magnitude of the association between values and experiences across the high school years and to test whether or not the data conform to the predicted moderator and mediator models depicted in Figure 1.

The hypotheses in this study were tested in three phases. In the first phase, analyses were conducted to discern whether or not work part-time (standard-oriented) work values and experiences exhibited the hypothesized discrepancy reduction and cohesion change patterns. The timing of adolescent work (i.e., the work cohort variable) was included to see if it has an effect on the patterns should they exist. We will learn that the hypotheses from the first phase were supported and the timing of work had no effect on the models. The second phase included analyses to examine if part-time (standard-oriented) work values mediated the relationships between part-time work experiences and anticipated full-time (goal-oriented) work values. The structure and sequence of the analyses in this phase were consistent with the approach espoused by Baron and Kenny (1986). As we will learn, the results of these analyses generally supported the mediator hypothesis and supported testing the structural model in the final phase and depicted in Figure 1. The final phase employed regression-based analyses to test the overall structural model and to discern if the discrepancy reduction and cohesion mechanisms linking part-time work values, full-time work values and part-time work experiences operate concurrently and are of the same magnitude. Structurally, part-time work experiences were cast as the mediator in the model based on the results of the second phase. The question addressed here was if the patterns of change concurrently operated within the value system (betas reflecting the association between part-time and full-time work values) and between the value system and work experiences (part-time work values and part-time work experiences) (i.e., are the betas reflecting the pathways in Figure 1 statistically significant) and if so, were the patterns of equal magnitude (i.e., are the betas reflecting the pathways in Figure 1 equal)?

Results

Mechanism linking part-time work values and experiences

The correlations presented in Table 2 suggest moderate cross-wave stability within the mastery, interpersonal, and economic value domains and the correlations in Table 3 suggest that work

experiences and values are more strongly linked in the mastery and interpersonal domains than the economic domain. The discrepancy between a value associated with part-time work and analogous part-time work experiences is presumed to moderate the relationship between the two over time. Before proceeding to the direct test of the moderator model, the model was tested with the work cohort groups discussed above to determine if the timing of work influences the model. The results (see Table 4) for the economic security and interpersonal value domains demonstrate that the cohesion and discrepancy reduction processes interact independent of the work group membership variable (PTWE linear trend by PTWV-PTWE discrepancy interaction term is significant). The statistically insignificant betas tied to the direct and interactive effect of the work cohort variable (see Table 4) demonstrate that the work cohort variable does not have an effect on the predicted model. In other words, the timing of work does not impact the theoretical model. This null finding suggests that collapsing the work cohorts is appropriate in an effort to limit missing data. For example, those students who worked during the 10th and 11th grades were treated the same as those who worked during the 10th and 12th grades for the purposes of calculating linear work experience trends.

Given the lack of an employment cohort effect, the moderator models for the mastery, economic security, and interpersonal domains were re-estimated *without* the employment status grouping variable. This technique yielded sample sizes exceeding 500 participants for each model (see Table 5 for the sample size employed in each model). As predicted, the discrepancy reduction process moderated the cohesion process. The statistically significant interaction term (see Table 5) suggests that the PTWV-PTWE discrepancy moderated the relationship between the linear change in experience and values across the 10th to 12th grades and across all three domains. The cohesion relationship shifts from positive to negative as the discrepancy increases from 1.5 to 3.0 SDs (see Figure 2). The r-square estimates from the regression models reveal, however, that only a modest portion of the variance in the change in PTWVs is explained by the moderator models.

To determine if and to what extent the PTWV, the PTWE, or a combination of both tend to shift toward discrepancy reduction when the discrepancy between the two is large (e.g., PTWV < PTWE or PTWV > PTWE), the discrepancy scores were categorized into three groups (33rd and 66th percentile breaks) so that more extreme discrepancy groups could be contrasted. The categorized PTWV-PTWE discrepancy data were employed in a repeated measures ANOVA to predict the change in PTWV and PTWE from time 1 to time 2. This analysis yielded mean-level changes in PTWV and PTWE scores across the two occasions for those adolescents who experienced larger (less than the 33rd or greater than the 66th percentiles) discrepancies between the two (i.e., PTWV < PTWE or PTWV > PTWE). To conduct this analysis, the PTWV, the PTWE, and the PTWV-PTWE discrepancy data had to be reorganized to coincide with the immediately preceding OLS regression models such that time 1 in this analysis reflected either 10th or 11th grade and time 2 reflected data from either 11th or 12th grade, depending on the grades during which a participant worked. For example, for those students who worked during the 10th and 12th grades, time 1 reflected data from the 10th grade and time 2 data reflected data from the 12th grade, but for students who worked during the 10th and 11th grades, the time 1 data and the time 2 data reflected those grades. For every participant in the following analysis, time 1 data precedes time 2 data, but the interval in-between may be one or two years and may reflect varying grade levels. Such an approach is appropriate, given that the moderator model was determined to be unaffected by the timing of work in the preceding analyses.

Before moving to the interpretation, it should be noted that the discrepancy percentile breaks were chosen arbitrarily to clearly demonstrate the nature of the identified relationships and were not employed to test the hypotheses. The hypotheses were previously tested and supported with OLS regression. Repeated measures ANOVA and the two groups of adolescents were

employed to generate means across time that could then be plotted in order to depict the discrepancy reduction and cohesion change patterns across time.

The means from the repeated measures ANOVAs (see Figure 3) reveal that larger PTWV-PTWE discrepancy results in discrepancy reduction across time (see Figure 3). Given that the value scores on the x-axis are standardized ($M = 0$, $SD = 1$), the decreases can be interpreted as a change in SD units. The results demonstrate that the mastery domain exhibits a fairly distinct picture relative to the economic security and interpersonal domains. Mastery values and experiences exhibit more extreme discrepancies at the 33rd and 66th percentiles of the discrepancy variable relative to the interpersonal and economic domains. This suggests that the variability in discrepancies between adolescents' part-time work values and experience within the economic security and interpersonal domains was less than the discrepancies exhibited within the mastery domain. When slight discrepancies occur within the economic security and interpersonal domains, the results demonstrate that values associated with part-time work tend to be more changeable than work experiences, but when a sizable discrepancy (about 1 SD) occurs in the mastery domain, both values and experiences make sizeable changes (between a 0.3. and 0.4 SD) toward discrepancy reduction. Although these analyses were only used to generate graphs, it should be noted that the polynomial linear time effect was statistically significant for five of the six repeated measures ANOVA models, the exception being the economic security domain when PTWV was initially less than PTWE. This result further supports the hypothesis that values and experiences change in a linear fashion to reduce discrepancies should they exist.

The Mediator Model of Work Values and Experiences

To test a mediator model, several criteria must be met (Baron & Kenny, 1986). The outcome, mediator, and predictor must be associated. The results presented in Table 3 suggest moderate to strong relationships between PTWVs (i.e., the mediator) and analogous FTWVs (i.e., the outcome), weak to moderate relationships between PTWVs and analogous PTWEs (i.e., the predictor), and generally weak to no relationships between FTWVs and analogous PTWEs. The pattern of the correlations suggest that PTWV and FTWV exhibit the strongest within-wave associations across the high school years, followed by the relationships between PTWE and PTWV and between FTWV and PTWE respectively. Therefore, standard- and goal-oriented values appear to be more cohesive with one another than they are with analogous work experiences.

Given that no linear relationship exists between FTWV and PTWE within the economic security domain (a requisite of the test of the mediator model (Baron & Kenny, 1986)), a mediator model is inappropriate for this domain and the hypothesized mediator models are, therefore, estimated for the mastery and interpersonal domains. To satisfy the test of a mediator model, the relationship between the predictor and the outcome must be reduced to zero in the presence of the mediator. The final aspect of this series of tests involves the OLS regression models presented in Table 6. The choice of the predictor and the outcome in this phase of the analysis is arbitrary because values are presumed to be engaged in a dynamic (i.e., reciprocal or bidirectional) relationship with experiences. The strength of the associations is, therefore, more conceptually relevant than the assignment to the independent and dependent variable categories. The results indicate that the model holds for 6 of the 8 tested models. The standard-oriented values (PTWV) mediate the cohesion relationship between analogous goal-oriented values (FTWV) and experiences (PTWE) across both the mastery and interpersonal domains, because the association between a FTWV and a PTWE reduce to zero in the presence of the PTWV. In the two exceptional cases, the results suggest partial mediation for the interpersonal domain during the 10th grade (the bivariate correlation from Table 3 is 0.28 and the beta from Table 6 is 0.15 and statistically significant) and virtually no mediation for the mastery domain

during the 12th grade (the bivariate correlation is 0.15 and the beta is -0.09). The prevailing pattern of results across the mastery and interpersonal domains generally supports the theoretical model suggesting that the cohesion relationship between contemporaneous experience and goal-oriented values (FTWV) is mediated by the analogous standard-oriented values (PTWV).

Mechanisms linking the work value system and experiences

The results above demonstrate that the discrepancy between a PTWV (i.e., standard-oriented value) and its PTWE (i.e., current work experience) analogue influences how part-time work values and experiences change relative to one another across the high school years. Previous research (Porfeli, 2007) demonstrated that the discrepancy between a PTWV and its FTWV analogue moderated the relationship between the polynomial change in PTWV and FTWV across the high school years. The results presented immediately above also suggest that PTWV system mediates the relationship between the FTWV system and part-time work experiences. In other words, standard-oriented applications of the value system mediate the relationship between goal-oriented applications of the value system and current work experiences.

The net of these analyses suggests that goal-oriented work values and current work experiences are linked to standard-oriented, in this case part-time work, values. These results do not, however, demonstrate the influence of the cohesion and discrepancy reduction patterns between and full-time work values and part-time work experiences relative to the influence of the same patterns linking part-time work values and experiences. In path modeling terms (see Figure 1), the question is whether the paths above standard-oriented work value change are stronger or weaker than those below this variable. In this final analysis, the relative strength of the discrepancy and cohesion patterns over time will be examined.

Both the PTWV-PTWE and PTWV-FTWV discrepancies were employed simultaneously in a regression model to determine the relative influence of each on the linear and quadratic change in a PTWV across time. In these sets of analyses, only the data from those adolescents who worked continuously during the 9th through 11th grades or 10th through 12th grades were employed because the ultimate aim was to simultaneously assess the shape and direction of change in PTWE, FTWV, and PTWV across time. Unlike the results presented in Table 4 in which the aim was to only assess change over two occasions of measurement in an effort to maximize the power of the analysis, the aim here was to estimate the shape and direction of the simultaneous change in a PTWV, PTWE and FTWV over three occasions of measurement, which unfortunately necessitated a sacrifice in statistical power. This analysis will permit an examination of linear change and permit some insight into the quadratic change in all three functions across three occasions of measurement. Given that quadratic change is best assessed with at least four occasions of measurement, this change will not be statistically tested, but will be explored in graphic terms.

The results demonstrated that the cohesion and discrepancy reduction patterns of change interact in a statistically significant fashion to link FTWV and PTWE to PTWV and to maintain harmony within the value system and between the value system and experience from the 9th to the 11th grade and 10th to 12th grade intervals (see Table 7). Given that direct effects (i.e., the cohesion process) cannot be interpreted in the presence of an interaction, the statistically significant interaction in this case suggests that the cohesion relationship hinges on the magnitude of the discrepancy. As the discrepancy increases, the cohesion relationships become negative and as the discrepancy approaches zero the cohesion relationships become positive. The only exception to this finding was for the statistically insignificant interaction between the discrepancy reduction and cohesion processes for the 9th to 11th grade linear change in mastery values. The results also demonstrate that the interactive impact of the two mechanisms is stronger within the value system (the link between part-time and full-time work values) than

between the value system and experience (the link between part-time work values and part-time work experiences), but both links exist and operate across the high school years.

The statistical methods (i.e., repeated measures ANOVA) used to generate Figure 3 were replicated to generate Figure 4. Again, repeated measures ANOVA was employed to generate means across time so that they could be used to generate Figure 4, but this analysis was not employed for hypothesis testing purposes. Unlike the methods employed to generate Figure 3, three occasions of measurement and the PTWV, PTWE, and FTWV change functions were computed. The scenarios were created by defining groups of adolescents who scored greater than or equal to a .25 standard deviation PTWV-PTWE and/or PTWV-FTWV discrepancies for each of the work value and experience domains. By fixing the size of the discrepancy to be equal, fixing the scale of the plots in Figure 4 and employing standardized variables, the relative size of the discrepancy reduction mechanisms can be compared across the graphs and interpreted in SD units. For the sake of brevity, only the models from the 10th to 12th grade results for the mastery domain from Table 6 are depicted in Figure 3, but the figures for the other value domains and for the 9th to 10th grade interval are very similar in nature and direction.

When a discrepancy is present the shape and direction of change suggest that the cohesion and discrepancy reduction mechanisms interact to increase harmony within the value system (i.e., the PTWV and FTWV functions relative to one another) and between the value system and work experiences (i.e., the PTWV and PTWE functions relative to one another). The shape and direction of the functions suggest that the most dramatic discrepancy reduction occurs within the first year after the discrepancy, but further discrepancy reduction generally continues to occur between the second and third occasion of measurement. The interpersonal domain generally exhibits the smallest discrepancies during the third year relative to the other two domains. All three value domains exhibited continued discrepancy reduction from the 11th to 12 grade, and this not only reinforces the general pattern, but also serves as evidence against the concern that the prevailing pattern is an artifact of regression to the mean. If the findings were an artifact of regression to the mean, then one would expect rebounding away from discrepancy reduction from time 2 to time 3. This did not occur and is consistent with previous research examining the PTWV and FTWV functions across the 9th to the 12th grade (Porfeli, 2007). Also consistent with the theoretical model, when small discrepancies existed they are maintained across three year intervals (9th to 11th and 10th to 12th grade). The sum of these findings suggests that the discrepancy reduction mechanism is activated when a discrepancy is present and cohesion mechanisms rule the day when little or no discrepancy is present.

Discussion

The results of this study affirm the notion that part-time work experiences and values are linked during the high school years through a dissonance mechanism. Specifically, part-time work experiences are engaged in a reciprocal relationship with work values pertaining to part-time work (i.e., standard oriented), which are in turn engaged in a relationship with full-time work values (i.e., goal-oriented values). Furthermore, discrepant work values and experiences converge over time. The dissonance mechanism is reflected through discrepancy reduction and cohesion processes that actively bind work values and experiences and yield greater harmony between the working adolescent and their part-time work context in a way that is akin to a cybernetic model. When the discrepancy reduction mechanism within the value system and between the value system and experience were compared, both discrepancies independently influenced the change in standard-oriented work values. The results also suggest that discrepancy reduction and cohesion mechanisms appear to be more active within the value system than between the value system and work experiences during the high school years.

The Interrelationships between Work Values and Part-Time Work Experiences

With the exception of the economic security domain, the theoretical model suggesting that standard-oriented work values mediate the relationship between goal-oriented work values and present-oriented work experiences was supported by the results in the present study. Comparing the magnitude of the cohesion estimates (e.g., correlations in Table 4) between part-time work experiences and goal- and standard-oriented values, suggests that present part-time work experiences and standard-oriented values exhibit stronger cohesion than do work experiences and goal-oriented values. This set of findings is consistent with Figure 1 and Figure 3 and supports a fundamental proposition of the model. The link between present work experience and goal-oriented values is indirect and possibly mediated by standard-oriented values. Subsequent statistical tests within the mastery and interpersonal domains also supported the proposition that standard-oriented values mediate the relationship between goal-oriented work values and present work experiences.

Cohesion and Discrepancy Reduction Mechanisms Promoting Person-Within-Context Harmony

The results suggest that cohesion and discrepancy reduction processes interact to promote person-within-context harmony. The discrepancy reduction mechanism, cast into developmental terms, leads to the prediction that discrepancies between work experience and values at the sample level should decrease over the high school years because person-in-context harmony is the preferred state within an adaptive and self-constructing living system (Ford, 1987). Although the results yielded some aberrations, the prevailing pattern of findings suggests that larger discrepancies at an earlier occasion predicted smaller discrepancies at a later occasion (see Figure 3). These findings, therefore, support the proposition that discrepancy reduction is an active and influential mechanism promoting integration of the person-in-context unit of analysis.

In contrast to the discrepancy between standard-oriented values and present-oriented behaviors and between standard- and goal-oriented values tested here, Boldero and Francis (2002) assert that the discrepancy between goal-oriented values and behaviors/experiences directed toward those values does not necessarily induce dissonance and may in fact prompt positive affect. Goal setting is, by definition, a discrepancy inducing process because a goal is a desired end state that presently does not exist. When a goal is set a discrepancy is created and this discrepancy does not necessarily induce dissonance and generally yields positive affect. Ongoing positive affect is predicted to be tied to the rate of progress toward a goal; therefore rate of progress rather than the discrepancy between the present and goal states may be the essential predictor of goal-oriented value and future-oriented behavior change. Future research could focus on examining the mechanisms binding adolescents' career planning behaviors and their goal-oriented work values to ascertain whether rate of progress toward a goal-oriented work value or the absolute difference between the work value and future-oriented behavior is the best predictor of value and behavior change over time.

The Influence of Part-Time Work and Goal-Oriented Values on Standard-Oriented Values

The relative influence of discrepancies within the value system and between the value system and work experience were assessed to determine which discrepancy had the greater independent impact on the change in standard-oriented values over time. Previous research found that the discrepancy reduction mechanism yielded greater harmony between standard- and goal-oriented values across the high school years (Porfeli, 2007), but this research did not contrast the influence of this mechanism against the same discrepancy reduction mechanism binding standard-oriented work values and commensurate part-time work experiences. Moreover, research suggests that work experiences appear to have a greater impact on work values than vice versa (Johnson, 2001a, 2002). The present study examined to what extent

work values and work behaviors/experiences are linked and the extent to which part-time work values are linked to full-time work values and part-time work experiences.

The results (see Figure 3 and Table 6) suggest that the work value system is engaged with work experiences over time. The discrepancy reduction and cohesion processes appear to be more active within the value system than between part-time work experiences and standard-oriented part-time work values, but the mechanisms do influence the latter albeit in a weak fashion. The interactive influences of the discrepancy reduction and cohesion processes appear to be most powerful within the interpersonal domain because this domain exhibited the smallest discrepancies during the third year when the 9th to 11th (not tabled) and 10th to 12th grade intervals were examined visually and the betas tied to the interaction terms and the r-square presented in Table 5 were much stronger for the interpersonal domain relative to the other two domains. The results from the present study speak to previous findings (Johnson, 2001a) by suggesting that goal-oriented work values have a greater impact on standard-oriented values than do work experiences.

The sum of these findings suggests that adolescent role transitions may have an impact on developmental processes (Shanahan, Porfeli, Mortimer, & Erickson, 2005). Given that high school students become increasingly concerned with the transition from school to work as they age, anticipated adult work values appear to be more strongly tied to current work values than are current part-time work experiences. This pattern is reasonable given that part-time work available to adolescents is generally temporary and offers little chance for advancement into career-track jobs.

The relatively weak link between work values and part-time work experiences may also be due to the social structural constraints that exist within the part-time labor force. Adolescents may have little personal control over their part-time work experiences and this circumstance may impede cohesion and discrepancy reduction in the person-within-context unit at it pertains to work values and experiences (Mortimer et al., 1992a). The part-time work setting, therefore, appears to have a weak influence over vocational development, because adolescents' appear to achieve and maintain much greater value system harmony than person-within-work context harmony during this period. Seemingly, *being a worker* has a weaker influence over career development than does the image invoked when we imagine *becoming a worker* during the high school years.

Limitations

The present study is limited in a few ways. First and perhaps most importantly, this study remains susceptible to regression to the mean artifacts (RTMAs). Research suggests that RTMAs are a ubiquitous problem in the social and behavioral developmental sciences and may be very difficult to estimate and control (Marsh & Hau, 2002). The results presented here graphically depicted groups exhibiting levels of traits and experiences above and below the mean and their subsequent change toward the mean as a way of demonstrating the discrepancy reduction tendencies, but these patterns may be partly due to RTMAs. The lack of rebounding away from the mean from 11th to 12th grade in Figure 4 and in many cases even further discrepancy reduction suggests that the observed discrepancy decreases are not entirely a product of RTMA. This evidence is, however, insufficient to rule out a lack of rebounding. With these concerns in mind, a series of models (not tabled) were computed employing groups of adolescents who, for example, scored at the mean for the part-time mastery work value and a .25 SD above the mean for the full-time mastery work value. These tests consistently demonstrated discrepancy reduction, and in this example, part-time mastery work values exhibited increases diverging from the mean and full-time mastery work values exhibited decreases toward the mean. In other words, the model predicted in these cases that adolescents'

part-time work mastery values would diverge from (rather than regress toward) the mean in the face of a discrepancy and the results suggested that they did. Despite the evidence reported here, RTMAs remain a concern and future research should employ techniques from the RTMA literature to control for this threat.

Second, the stronger associations between standard- and goal-oriented work values relative to the associations between work values and work experiences may be at least partly due to the instrumentation. Although all of the constructs were assessed with a pen-and-paper measure and therefore shared the same method, the standard- and goal oriented work values measures contained parallel items. The items employed to assess part-time work experiences were in most cases quite similar to the work value analog, but they were not identical. Therefore, the standard- and goal-oriented work values measures shared greater method variance with one another than they did with the work experience items. This difference in shared method variance may have contributed to the differences observed in the magnitude of the associations reported. Future research should be conducted to develop and implement a set of measures that employ completely parallel items to assess values and experiences and thereby control for the potential differences in association caused by differences in shared method variance.

Finally, although the reliability estimates for the value constructs were reasonable and the structure of the constructs exhibited metric invariance over time, this line of research would benefit from a more reliable set of instruments to assess work values. Interestingly, the value measures for the mastery domain were the most reliable and those for the economic security domain were the least reliable and the hypotheses were respectively most and least consistently supported in these domains. Future research could employ a more reliable set of instruments to discern their impact on the presumed patterns of change assessed in this study.

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Figure 1.

Path Model of the Interaction of the Discrepancy and Cohesion Mechanisms Linking Work Values and Experiences.

*Absolute value of the discrepancy is used because the magnitude rather than the direction of the discrepancy is theoretically predicted to influence the value trajectories over time.

Note: Although future-oriented experiences are depicted in this theoretical model, this aspect was not tested in the present study.

Mastery

Economic

Interpersonal

Figure 2. Plot of the Interaction between the Cohesion and Discrepancy Reduction Processes across the Mastery, Economic and Interpersonal Domains.

Mastery Domain: PTWV > PTWE

Mastery Domain: PTWV < PTWE

Economic Security Domain: PTWV > PTWE

Economic Security Domain: PTWV < PTWE

Interpersonal Domain: PTWV > PTWE

Interpersonal Domain: PTWV < PTWE

Figure 3.

Trend in PTWV and PTWE across Time under the Condition a Large Negative and Positive Part-Time Work and Value Discrepancy

*Note that the y-axis is on the same scale across all of the plots to permit a comparison of the relative magnitude of the initial discrepancy and change toward discrepancy reduction and the relative consistency after discrepancy reduction. The x-axis is a time scale relative to the person given that time 1 may reflect 10th or 11th grade and time 2 may represent 11th or 12th grade depending on the timing and pattern of an adolescent's employment.

Mastery Domain: FTMV > PTMV > PTWE

Mastery Domain: FTMV < PTMV < PTWE

Mastery Domain: FTMV > PTMV & PTWE > PTMV

Mastery Domain: FTMV < PTMV & PTWE < PTMV

Figure 4.

Mutual change in FTMV, PTMV, and PTWE from 10th to 12th grade under the Condition of Distinct Discrepancy Configurations.

*Note that the y-axis is on the same scale across all of the plots to permit a comparison of the relative magnitude of the initial discrepancy and change toward discrepancy reduction and the relative consistency after discrepancy reduction.

Table 1
Conceptual Classification of the Work Value and Work Experience Items

Economic Security
<i>Work Value</i>
Good pay.
A steady job, with little chance of being laid off.
<i>Work Experience</i>
Would you consider your pay “good pay” for the work you do?
There is little opportunity for advancement on my job.
Interpersonal
<i>Work Value</i>
A chance to be helpful to others or useful to society.
A chance to work with people rather than things.
<i>Work Experience</i>
My job gives me a chance to be helpful to others.
There are nice friendly people to work with.
Mastery
<i>Work Value</i>
A chance to make my own decisions at work.
A job where I have a lot of responsibility.
A job that uses my skills and abilities.
A chance to learn a lot of new things at work.
<i>Work Experience</i>
My job uses my skills and abilities.
My job gives me a chance to learn a lot of new things.
How often are you interested enough in your job to do more work than your job requires?
How often do you feel that your work is meaningful and important?
Most of my interests are centered around my job.
I am very much involved personally in my job.

Table 2
Correlations among Work Value and Experience Domains from 9th to 12th Grade.

Part-time work values									
	1	2	3	4	5	6	7	8	9
1. Mastery - 10th grade									
2. Mastery - 11th grade	.51								
3. Mastery - 12th grade	.48	.60							
4. Economic Security - 10th grade	.41	.26	.22						
5. Economic Security - 11th grade	.32	.53	.37	.52					
6. Economic Security - 12th grade	.26	.36	.48	.45	.58				
7. Interpersonal - 10th grade	.57	.35	.32	.25	.18	.14			
8. Interpersonal - 11th grade	.41	.59	.42	.13	.28	.17	.57		
9. Interpersonal - 12th grade	.32	.37	.55	.06	.14	.25	.47	.57	
Full-time work values									
	1	2	3	4	5	6	7	8	9
1. Mastery - 10th grade									
2. Mastery - 11th grade	.53								
3. Mastery - 12th grade	.42	.56							
4. Economic Security - 10th grade	.41	.24	.16						
5. Economic Security - 11th grade	.21	.40	.26	.46					
6. Economic Security - 12th grade	.22	.29	.42	.39	.56				
7. Interpersonal - 10th grade	.54	.35	.27	.24	.09	.12			
8. Interpersonal - 11th grade	.36	.57	.36	.11	.18	.09	.54		
9. Interpersonal - 12th grade	.34	.40	.57	.09	.07	.21	.43	.54	
Part-time work experiences									
	1	2	3	4	5	6	7	8	9

All correlations among the value constructs are statistically significant at $p < 0.05$ except the correlation between variables 4 and 9 for part-time work experiences; For part-time work experiences;

**
p < 0.05

Table 3

Correlations between PTWV, FTWV, and PTWE from 9th to 12th Grade across the Mastery, Economic Security, and Interpersonal Value Domains.

		Correlation by Grade				Mean Correlation ¹
		9 th	10 th	11 th	12 th	
Mastery	PTWV-FTWV	0.56**	0.56**	0.56**	0.54**	0.56
	PTWV-PTWE	0.33**	0.40**	0.42**	0.32**	0.37
	FTWV-PTWE	0.13**	0.15**	0.22**	0.10*	0.15
Economic	PTWV-FTWV	0.50**	0.44**	0.45**	0.47**	0.47
	PTWV-PTWE	0.05	0.14*	0.11*	0.09*	0.10
	FTWV-PTWE	-0.02	0.05	-0.02	0.08	0.02
Interpersonal	PTWV-FTWV	0.65**	0.70**	0.68**	0.69**	0.68
	PTWV-PTWE	0.22**	0.29**	0.32**	0.26**	0.28
	FTWV-PTWE	0.20**	0.28**	0.27**	0.22**	0.24

¹ Note: No p-values are indicated in this column because the values simply reflect computed means of the corresponding rows rather than independent inferential statistics.

* p < 0.05

** p < 0.005

Table 4

Moderator model of Mastery Values, Experience, and a Test of an Employment Group Effect.

Outcome: PTWV – 10 th to 12 th grade linear trend [*]			
Mastery Values	Beta (β)	t-value	p-value
PTWE linear trend [*]	0.422	2.768	0.006
Absolute Value of the PTWV-PTWE discrepancy [*]	0.049	0.514	NS
Employment Group ^{**}	0.067	0.965	NS
Interaction: Employment Group by PTWE linear trend	–0.082	–0.529	NS
Interaction: Employment Group by PTWV-PTWE discrepancy	–0.018	–0.165	NS
Interaction: PTWE linear trend by PTWV-PTWE discrepancy	–0.184	–1.240	NS
Triple Interaction	–0.025	–0.167	NS
R-Square	0.06		
N	532		
Outcome: PTWV – 10 th to 12 th grade linear trend [*]			
Economic Security Values	Beta (β)	t-value	p-value
PTWE linear trend [*]	0.297	1.928	0.054
Absolute Value of the PTWV-PTWE discrepancy [*]	–0.045	–0.471	NS
Employment Group ^{**}	–0.064	–0.937	NS
Interaction: Employment Group by PTWE linear trend	0.106	0.683	NS
Interaction: Employment Group by PTWV-PTWE discrepancy	0.196	1.797	NS
Interaction: PTWE linear trend by PTWV-PTWE discrepancy	–0.395	–2.526	0.012
Triple Interaction	–0.066	–0.587	NS
R-Square	0.09		
N	529		
Outcome: PTWV – 10 th to 12 th grade linear trend [*]			
Interpersonal Values	Beta (β)	t-value	p-value
PTWE linear trend [*]	0.576	3.896	0.0001
Absolute Value of the PTWV-PTWE discrepancy [*]	0.117	1.291	NS

Outcome: PTWV – 10 th to 12 th grade linear trend [*]			
Mastery Values	Beta (β)	t-value	p-value
Employment Group ^{**}	0.093	1.390	NS
Interaction: Employment Group by PTWE linear trend	–0.148	–1.081	NS
Interaction: Employment Group by PTWV-PTWE discrepancy	–0.080	–1.081	NS
Interaction: PTWE linear trend by PTWV-PTWE discrepancy	–0.501	–3.054	0.001
Triple Interaction	0.141	0.996	NS
R-Square	0.08		
N	532		

* Data varies by employment group, see results section for more details

** 1 = worked 10th and 12th grade, 2 = worked 10th and 11th grade, and 3 = worked 11th and 12th grade, see results section for more details.

Table 5

A Test of the Moderator Model of Values and Experience

Predictors		Outcome: PTWV – 10 th to 12 th grade linear trend [*]		
		Beta (β)	t-value	p-value
Mastery: PTWE linear trend [*]		0.238	5.606	< 0.0001
Absolute Value of the PTWV-PTWE [*] grade discrepancy		–0.020	–0.484	NS
Interaction		–0.239	–5.580	< 0.0001
R-Square		0.09		
N		532		
Predictors		Outcome: PTWV – 10 th to 12 th grade linear trend [*]		
		Beta (β)	t-value	p-value
Economic Security: PTWE linear trend [*]		0.085	1.981	0.048
Absolute Value of the PTWV-PTWE [*] grade discrepancy		0.071	1.6638	NS
Interaction		–0.287	–6.580	< 0.0001
R-Square		0.08		
N		529		
Predictors		Outcome: PTWE – 10 th to 12 th grade linear trend [*]		
		Beta (β)	t-value	p-value
Interpersonal: PTWE linear trend [*]		0.187	4.452	< 0.0001
Absolute Value of the PTWV-PTWE [*] grade discrepancy		0.052	1.247	NS
Interaction		–0.256	–5.923	< 0.0001
R-Square		0.09		
N		532		

* Data varies by employment group, see the measures and results sections for more details

Table 6

The Mediator Model of Mastery and Interpersonal Values and Experience: PTWV and FTWV predicting PTWE

Mastery			
Outcome	Predictor(s)	Beta (β)	R ²
PTWE 9 th grade	PTWV 9 th grade	0.37 ^{***}	0.12
	FTWV 9 th grade	−0.07	
PTWE 10 th grade	PTWV 10 th grade	0.45 ^{***}	0.17
	FTWV 10 th grade	−0.08	
PTWE 11 th grade	PTWV 11 th grade	0.44 ^{***}	0.18
	FTWV 11 th grade	−0.03	
PTWE 12 th grade	PTWV 12 th grade	0.36 ^{***}	0.11
	FTWV 12 th grade	−0.09 [*]	
Interpersonal			
Outcome	Predictor(s)	Beta (β)	R ²
PTWE 9 th grade	PTWV 9 th grade	0.16 ^{**}	0.05
	FTWV 9 th grade	0.10	
PTWE 10 th grade	PTWV 10 th grade	0.19 ^{**}	0.10
	FTWV 10 th grade	0.15 [*]	
PTWE 11 th grade	PTWV 11 th grade	0.26 ^{**}	0.11
	FTWV 11 th grade	0.09	
PTWE 12 th grade	PTWV 12 th grade	0.21 ^{**}	0.07
	FTWV 12 th grade	0.07	

Note: Results reported in standardized (β) metric.

* P < 0.05

** P < 0.01

*** P < 0.001

Table 7

The Simultaneous Impact of Cohesion and Discrepancy Reduction Mechanisms on the Work Value System and Part-Time Work Experiences.

		Outcomes	
		PTWV 9 th to 11 th Grade Linear Change	PTWV 10 th to 12 th Grade Linear Change
Mastery Domain			
Cohesion	PTWE linear trend	0.18 ^{**}	0.19 ^{**}
	FTWV linear trend	0.41 ^{***}	0.42 ^{***}
Discrepancy Reduction	Absolute Value of the PTWV-PTWE discrepancy	0.07	0.05
	Absolute Value of the PTWV-FTWV discrepancy	0.16 ^{**}	0.16 ^{**}
Interactions	PTWV linear trend by PTWV-PTWE discrepancy	-0.03	-0.15 [*]
	PTWV linear trend by PTWV-FTWV discrepancy	-0.21 ^{**}	-0.17 ^{**}
R²		0.33	0.30
N		192	234
Economic Domain			
Cohesion	PTWE linear trend	0.06	0.08
	FTWV linear trend	0.39 ^{***}	0.37 ^{***}
Discrepancy Reduction	Absolute Value of the PTWV-PTWE discrepancy	0.04	0.03
	Absolute Value of the PTWV-FTWV discrepancy	0.18 ^{**}	0.24 ^{***}
Interactions	PTWV linear trend by PTWV-PTWE discrepancy	-0.15 [*]	-0.21 ^{***}
	PTWV linear trend by PTWV-FTWV discrepancy	-0.27 ^{***}	-0.27 ^{***}
R²		0.30	0.26
N		204	245
Interpersonal Domain			
Cohesion	PTWE linear trend	0.14 [*]	0.05
	FTWV linear trend	0.49 ^{***}	0.52 ^{***}

		Outcomes	
		PTWV 9 th to 11 th Grade Linear Change	PTWV 10 th to 12 th Grade Linear Change
Mastery Domain			
Discrepancy Reduction	Absolute Value of the PTWV-PTWE discrepancy	0.07	-0.06
	Absolute Value of the PTWV-FTWV discrepancy	0.17 ^{**}	-0.03
Interactions	PTWV linear trend by PTWV-PTWE discrepancy	-0.23 ^{***}	-0.10 [*]
	PTWV linear trend by PTWV-FTWV discrepancy	-0.21 ^{***}	-0.32 ^{***}
		R ²	0.40
		N	209
			0.43
			254

Note: Results reported in standardized (β) metric.

* P < 0.05

** P < 0.01

*** P < 0.001